



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,779	10/10/2000	Stan V. Lyons	M881.12-0001	5059

164 7590 05 20 2003

KINNEY & LANGE, P.A.
THE KINNEY & LANGE BUILDING
312 SOUTH THIRD STREET
MINNEAPOLIS, MN 55415-1002

EXAMINER

SMITH, JOHNNIE L

ART UNIT PAPER NUMBER

2881

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,779

Applicant(s)

LYONS ET AL.

Examiner

Johnnie L Smith II

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 04 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by US patent 6,429,444 (Korenev et al). In reference to claims 1-11, Korenev discloses an irradiation comprising a radiation source (10), a product location system (32), a sensor (40 a-c), and a control system (54). Korenev discloses the irradiation system wherein the radiation source provides a beam (22). Korenev discloses the irradiation system wherein the location system comprises a conveyor (32). Korenev discloses a system wherein the sensor system includes an array (40a-c). Korenev discloses the irradiation system wherein the sensor system further includes means for scaling the intensity of the beam that passes through the product (58). In reference to claims 12-15, Korenev discloses a method of irradiating a product comprising providing a radiation beam at a controlled

intensity, directing the beam onto a product, measuring the intensity of the beam that passes through the product, adjusting the intensity. Korenev discloses a method wherein directing the radiation beam onto product comprises advancing product past the radiation beam on a conveyor (see abstract).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,429,444 (Korenev et al). As discussed above Korenev discloses an irradiation comprising a radiation source (10), a product location system (32), a sensor (40 a-c), and a control system (54). Korenev discloses the irradiation system wherein the radiation source provides a beam (22) (see abstract and column 3 line 43-column 4 line 19). Korenev fails to clearly teach a conversion plate wherein an electron beam is converted in to an x-ray beam as the beam exits the scan horn (20). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Korenev with such a conversion plate for

the purpose of having the most effective beam based on the materials being irradiated.

Response to Arguments/Amendment

4. Applicant's arguments/amendment filed 03/04/2003 have been fully considered but they are not persuasive. Applicant argues that features being claimed by applicant are not shown in the reference cited. More specifically the limitations, being presented in all of the independent claims, of a current sensor coupled to the radiation source for measuring the beam current provided by the source, and a control system that calculates the intensity of the radiation beam that pass through the product (page 6). The examiner disagrees with such arguments because as shown in figure 1 and disclosed in the abstract of Korenev et al, detector 40a measures the strength (electron current) of the beam prior to entering the first item (column 3 lines 23-27). Detector 40a and applicants current sensor are equivalent structures. Therefore, because these two are art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the said current sensor for the detector of Korenev et al.

5. In reference to applicants further argument of a control system that calculates the intensity of the radiation beam that pass through the product, Korenev et al discloses in figure 1 and the abstract a processor (54) such as a computer that compares the strength of the beam before and after it enters each item and adjust the beam accordingly (column 3 line 43-column 4 line 19). In reference to claims 16 and 17, applicant argument that the claims are allowable based upon the elements and limitations that applicant recites render the previous claims allowable over the prior art is moot. In reference to claims 16 and 17, the subject matter and limitations of claims 16 and 17 are clearly anticipated by US patent 6,429,444 (Korenev et al) as discussed above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the

Art Unit: 2881

advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L Smith II whose telephone number is 703-305-0380. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 703-308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



LSII

May 16, 2003



JOHN R. LEE
SUPERVISOR
TECHNICAL CENTER 2880